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**July 17 - “Management or Scientific Innovations? Building the Right Mix for Successful Financing”** with David Porter, Managing Partner, Apposite Capital.



**July 22 - “Living with Vertigo: An Entrepreneurial Story in the Chemical Industry”** with Brian Morin, Founder, Innegrity, LLC.



**July 29 - “Department of Commerce Sustainable Manufacturing Initiative – Government Resources that Support Sustainable Manufacturing”** with Morgan Barr, International Economist, Department of Commerce.



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## ACS WEBINARS™

*From Laboratory to Licensing: Protecting Your Intellectual Property Along the Way*



Speaker: Tom Steinberg  
RMSC Law



Moderator: Jayashree Srinivasan  
Accelrys, Inc.

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# From Laboratory to Licensing: Protecting Your Intellectual Property Along the Way

ACS Webinar

July 1, 2010

Thomas Steinberg, Esq.



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## Overview

- Legal Basis for Patents
- Pre-Patenting Activities
- Patenting Process
- Post-Patenting Activities



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## Legal Basis for Patents

- U.S. Constitution—Article I, Section 8, clause 8
  - Congress shall have the power...
    - To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;
- United States Code – Title 35
- Code of Federal Regulations – Title 37
- Manual of Patent Examining Procedure
- Federal “Case Law”



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## Requirements

- Invention must be useful (35 U.S.C. 101)
- Invention must be novel over prior art (35 U.S.C. 102)
- Invention must not be obvious over prior art (35 U.S.C. 103)



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## Patentable Subject Matter

- Whoever invents or discovers any new and useful
  - (i) *process*,
  - (ii) *machine*,
  - (iii) *manufacture*, or
  - (iv) *composition of matter*,
- or any new and useful
  - (v) *improvement thereof*,
- may obtain a patent therefor, subject to the conditions and requirements of this title. (35 U.S.C. 101)



## Pre-Patenting Activities

- New businesses should have employees, especially those hired to “invent”, sign an employment contract requiring them to assign all intellectual property rights to company
- Lab Notebooks – keep them (forever?—document destruction policies)
  - Bound, written\*, numbered pages
  - Dated and signed by researcher and witness
  - Experimental setup/data, graphs, drawings, findings
  - Can be important to establish novelty and/or priority of invention over others



## Pre-Patenting Activities

- Disclosures
  - Avoid publishing, showing, advertising or selling until patent application is filed
    - Such public disclosures can be used as prior art against you (technical journals, trade shows, etc.)
    - In the U.S. there is a 1 year “grace period” during which public disclosures by the inventor cannot be used as prior art against his/her patent application
    - No such grace period internationally = loss of patent rights



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## Pre-Patenting Activities

- Patent Applications
  - Two types: provisional and non-provisional
    - Provisional applications are never examined, merely a “place holder”
    - Best, if both are filed that they are identical
      - Up front costs of drafting
  - Parts of a Patent Application
    - Specification
    - Drawings
    - Claims
    - abstract



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## Pre-Patenting Activities

- Patent Applications
  - Parts of a Patent Application
    - Claims are paramount since they define the scope of protection for the invention – language is critical!
      - “to” vs. “at”
    - Best to have a prior art search conducted prior to drafting claims
      - Helps identify patentable aspects for claim drafting as compared to prior art
      - Novelty (35 U.S.C. 102)
      - Obviousness (35 U.S.C. 103)



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## Patenting Process

- File Application with PTO fees
  - Duty to disclose known prior art to PTO (e.g. from search)
  - Information disclosure statement (IDS)
- Wait/wait/wait... (1.5 – 2 years)
- First Office Action on Merits
  - PTO examiner conducts independent prior art search
  - Examiner identifies any formal problems, issues “formal” rejections
  - Provides patentability opinion in the form of rejections for lack of novelty and/or obviousness over prior art



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## Patenting Process

- Response to Office Action
  - Applicant can amend claims
    - No “new matter”/initial patent search is important
  - Respond with arguments as to why the Examiner is incorrect and/or why the cited prior art is inapplicable to the claimed invention
- Final Rejection (or Allowance)
  - Examiner responds to Applicant’s amendment/arguments



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## Patenting Process

- Response After Final Rejection
  - Applicant cannot freely amend the claims at this point
  - Provide more arguments in favor of patentability
- Examiner can either allow the claims or issue an “Advisory Action”
  - Advisory Action is an indication that claims are still rejected



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## Patenting Process

- After “Advisory Action” you can
  - Appeal to the Board of Appeals/CAFC
  - File a Request for Continued Examination (RCE)
    - Additional fees
    - Must file amendment to claims or otherwise raise new issues
    - Starts prosecution over
  - Abandon the application



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## Patenting Process

- Time periods are critical to patent prosecution
  - Failure to respond to PTO within a specified period can either increase costs (EOT) or ultimately result in abandonment of your application
  - Important to provide timely response to your attorney’s questions, so (s)he can meet PTO deadlines



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## Patenting Process

- International Filing
  - Must file within 1 year of first filed U.S. application
  - PCT (Patent Cooperation Treaty)
    - Covers filing in most countries (in English)
    - Merely an application – never issues as a patent
    - Later “national phase” filing in individual countries
    - Process and requirements are similar to U.S.



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## Post-Patenting Activities

- Now you have a patent: What can you do with it?
- Patents are personal property (like a car) giving the patentee a “bundle of rights”
  - Right to exclude others from practicing your claims
    - A personal right to sue others for patent infringement
    - Remedies include monetary damages and/or permanent injunction against infringer
    - Can prevent importation of infringing products into U.S.



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## Post-Patenting Activities

### – Right to license others to practice your claims (contractual)

- License royalties can provide an ongoing income stream
- Can license all or only part(s) of claim scope
  - Claims 1-5, but not remaining claims
  - Right to make and sell, but not use
  - Right to sell only into defined area of commerce or geography
- Exclusive license gives licensee all rights
  - No others can be licensed
- Non-exclusive license
  - Others can be licensed
- Grants-back of patent rights of licensee



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## Post-Patenting Activities

### – But, no right to practice your own invention!

- Must be aware of possible dominating patents, i.e. another party's patent having claims which cover your invention/product
- Prior to introducing ANY product to market (patented or otherwise), business should have a Freedom-to-Operate (FTO) study conducted
  - Search of in-force patents/claims
  - Infringement analysis of suspect patent claims as compared to your product
  - Validity assessment of problem patent(s)
  - Obtain a FTO opinion from qualified patent attorney
  - Remember, you could be subject to monetary damages/injunction!



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# Helpful Online Support

- [www.uspto.gov](http://www.uspto.gov)
  - USPTO website
  - All variety of support, including searches, laws, rules...
- [www.freepatentsonline.com](http://www.freepatentsonline.com)
  - Good Search site w/ability to download .pdf copies of patents (US and international)
- [www.rmsclaw.com](http://www.rmsclaw.com)
  - Top notch patent law firm! (Ours, of course)



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The United States

To all to whom these Presents shall come, Greeting.

Whereas Samuel Hopkins of the City of Philadelphia and State of Pennsylvania hath discovered an Improvement, not known or used before, in the making of Red ash and Black ash, by annexing certain Ores thereto, in the making of Black ash 1<sup>st</sup> by heating the new Ash in a Furnace, 2<sup>d</sup> by separating and boiling them when so burnt in Water, 3<sup>d</sup> by drawing off and setting the Lye, and 4<sup>th</sup> by boiling the Lye into Salts which then are the true Black ash, and also in the making of Red ash, by filtering the Red ash so made as aforesaid, which Operation having the same Effect in a Furnace, preparing to their Refinement and boiling in Water, is now known to the Publick; and whereas a most just and equitable Right is thereunto in full and sole Possession, and exclusive Right and Liberty of using and vending to others the said Discovery of having the same Ashes prepared as their being refined and boiled in Water, according to the true Intent and Meaning of the said aforesaid Act, inasmuch as the said Ashes were made, passed, and the Act of the United States hath been so long given under my hand at the City of New York the thirty first Day of July in the Year of our Lord one thousand seven hundred and Ninety.

Washington

City of New York July 31<sup>st</sup> 1790.

I do hereby certify that the foregoing Letters Patent were returned to me in pursuance of the Act entitled "An Act to promote the Progress of useful Arts," that I have examined the same, and find them conformable to the said Act.

Edm. Randolph, Attorney General for the United States.

FIRST U.S. PATENT



## Q&A SESSION

### *From Laboratory to Licensing: Protecting Your Intellectual Property Along the Way*



Speaker: Tom Steinberg  
RMSC Law



Moderator: Jayashree Srinivasan  
Accelrys, Inc.

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